SIEMENS

Data sheet 3RR2141-1AA30



Monitoring relay, can be mounted to Contactor 3RT2, Size S00 basic, analog adjustment Apparent current monitoring 1.6-16 A, 20-400 Hz, 2-phase Supply 24 V AC/DC 1 change-over contact Monitoring for Current overshoot and undershoot Phase failure, Cable break with or without fault buffer ON delay 0-60 s Noise pulse suppression 0-30 s Switching hysteresis 6% Screw connection system

product brand name	SIRIUS
product designation	Monitoring relays
design of the product	analogically adjustable, 2-phase current monitoring
product type designation	3RR2
General technical data	
size of contactor can be combined company-specific	S00
operating apparent power rated value	4 VA
insulation voltage for overvoltage category III according to IEC 60664	
 with degree of pollution 3 rated value 	690 V
surge voltage resistance rated value	6 kV
consumed current at 24 V	90 mA
protection class IP	
on the front	IP20
of the terminal	IP20
shock resistance	15g / 11 ms
vibration resistance	10 55 Hz / 0.35 mm
mechanical service life (operating cycles) typical	10 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
reference code according to IEC 81346-2	K
relative repeat accuracy	2 %
Substance Prohibitance (Date)	10/01/2009
Supply voltage	
type of voltage of the supply voltage	AC/DC
supply voltage 1 at AC	
 at 50 Hz rated value 	24 V
 at 60 Hz rated value 	24 V
supply voltage 1 at DC rated value	24 V
supply voltage frequency 1	50 60 Hz
Measuring circuit	
type of current for monitoring	AC
adjustable current response value current	
• 1	1.6 16 A
• 2	1.6 16 A
adjustable response delay time	
when starting	0 60 s
with lower or upper limit violation	0 30 s
Precision	
temperature drift per °C	0.1 %/°C
Short-circuit protection	

design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gG: 4 A
Communication/ Protocol	
protocol is supported IO-Link protocol	No
type of voltage supply via input/output link master	No
Auxiliary circuit	
number of CO contacts	
 for auxiliary contacts 	1
operational current of auxiliary contacts at AC-15	
● at 24 V	3 A
● at 230 V	3 A
● at 400 V	3 A
operational current of auxiliary contacts at DC-13	
● at 24 V	1 A
● at 125 V	0.2 A
● at 250 V	0.1 A
contact rating of auxiliary contacts according to UL	B300 / R300
Main circuit	
operating power rated value	2.5 W
ampacity of the semiconductor output in SIO mode	20 mA
operational current at 17 V minimum	5 mA
Electromagnetic compatibility	
EMC emitted interference according to IEC 60947-1	ambience A (industrial sector)
EMC immunity according to IEC 60947-1	ambience A (industrial sector)
Connections/ Terminals	
product component removable terminal for main circuit	No
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	
for main current circuit	screw-type terminals
 for auxiliary and control circuit 	screw-type terminals
type of connectable conductor cross-sections	
 for main contacts 	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x (1 4 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 at AWG cables for main contacts 	1x 12, 2x (20 14)
connectable conductor cross-section for main contacts	
 solid or stranded 	0.75 4 mm²
 finely stranded with core end processing 	0.5 2.5 mm ²
type of connectable conductor cross-sections	
for auxiliary contacts	4 (0 5 4 0) 0 (0 5 5 5 5
— solid	1x (0.5 4 mm²), 2x (0.5 2.5 mm²)
— finely stranded with core end processing	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
at AWG cables for auxiliary contacts AWG number as golded connectable conductor gross	2x (20 14)
AWG number as coded connectable conductor cross section for main contacts	20 12
tightening torque with screw-type terminals	0.8 1.2 N·m
Installation/ mounting/ dimensions	
mounting position	any
fastening method	direct mounting
height	79 mm
width	45 mm
depth	80 mm
required spacing	
with side-by-side mounting	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
 for grounded parts 	

— forwards	0 mm	
— backwards	0 mm	
— upwards	0 mm	
— at the side	6 mm	
— downwards	0 mm	
for live parts		
— forwards	0 mm	
— backwards	0 mm	
— upwards	0 mm	
— downwards	0 mm	
— at the side	6 mm	
Ambient conditions		
installation altitude at height above sea level maximum	2 000 m	
ambient temperature		
 during operation 	-25 +60 °C	
 during storage 	-40 +80 °C	
Certificates/ approvals		
General Product Approval		EMC

(P)

Confirmation









Declaration of Conformity

Test Certificates

Marine / Shipping





Special Test Certificate Type Test Certificates/Test Report





Marine / Shipping

other









Confirmation

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RR2141-1AA30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RR2141-1AA30

 ${\bf Service \& Support~(Manuals,~Certificates,~Characteristics,~FAQs,...)}$

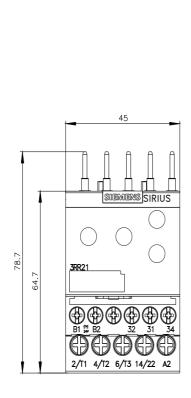
https://support.industry.siemens.com/cs/ww/en/ps/3RR2141-1AA30

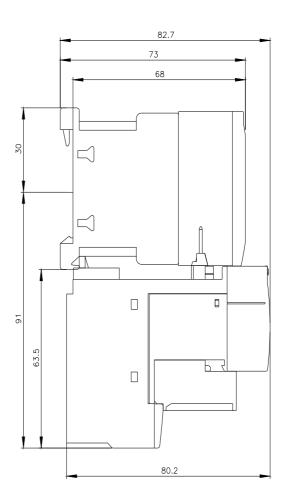
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ EPLAN\ macros,\ ...)$

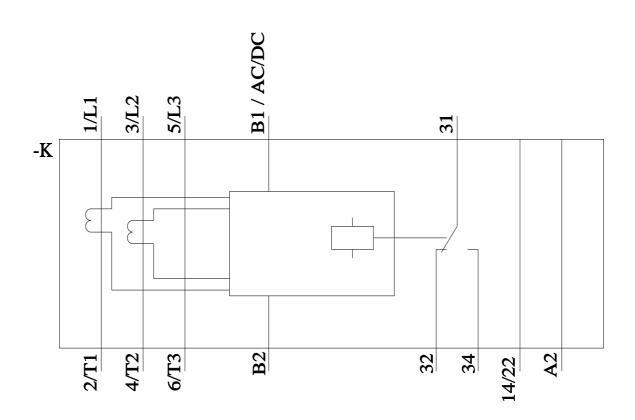
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RR2141-1AA30&lang=en

Characteristic: Derating

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